REMARKS

In response to the Office Action mailed November 9, 2004, Applicant amends his application and requests reconsideration. No claims are added or cancelled so that claims 1-11 remain pending.

Claim 11 was indicated as allowable so that no further comment on that claim is necessary.

The invention concerns a trigger assembly for an electrical power tool, such as an electric drill or circular saw, having a trigger that is pulled to close a switch providing electrical power to a motor driving the tool. An important feature of the trigger assembly is that the trigger cannot be pulled to close the associated switch unless a locking member is released, i.e., moved from a locking position that locks the trigger so that the associated switch is electrically open, to an unlocking position in which the trigger can be pulled.

In this Amendment, claim 1 is amended strictly for clarity. The words "upper" and "lower" are replaced by "first" and "second", respectively, words that do not suggest or require a particular orientation of the trigger assembly. These amendments are intended to prevent an improper interpretation of the claims with regard to orientation of the trigger assembly. Further, in amended claim 1, the trigger is described as having a surface, which all similar switch triggers have, that is engaged by a finger, usually the forefinger, of the person operating a power tool that includes the trigger assembly. In the embodiment of the invention described in the patent application this surface is not numbered, but the pressing of the surface by a finger is described at page 7, lines 1-9. The surface referred to includes the actuator 340 in the depicted embodiment of the trigger 210. The surface extends, referring to Figure 1 of the patent application, from the upper end 212, referred to in the amended claim as the first end, of the trigger. The surface extends to the end 214, referred to as the lower end in the specification and as the second end in the amended claims. The only other claim amendments are in dependent claims that are amended to conform to the changes in language in claim 1.

In the invention, at least in the depicted embodiment, the locking mechanism includes a locking member 301 which is adjacent the second end 214 of the trigger. That locking member 301 can be displaced along a radius extending from the unnumbered pin about which the trigger 210 pivots. That pin is represented by a circle appearing in the upper left hand part of each of Figures 4A-4E. As described in the patent application, by displacing the sliding knob 340 along that radial direction, the locking member 310 can be brought out of abutment with the protrusion 116 so that the trigger can be pivoted to the unlocking position illustrated in Figures 4C-4E.

Claims 1-3 and 8-10 were rejected as anticipated by Piber (U.S. Patent 3,829,645). This rejection is respectfully traversed.

Piber is clearly pertinent prior art which describes a trigger assembly for a power tool. The Piber trigger assembly requires an affirmative release by depressing a knob 24 against a spring biasing force. Then, the trigger of the Piber assembly can close an electrical switch associated with the trigger assembly and the power tool activated through the trigger assembly. However, Piber fails to disclose the invention, particularly as described in the clarified form of claim 1.

There is an important error in the Official Action referring to the trigger 6 of Piber as having an upper end and a lower end and being pivotable "about the upper end [18]...". Clearly, the trigger 6 in Piber slides with respect to the shaft 18 that is part of the locking mechanism of the Piber trigger assembly. However, the trigger 6 actually pivots about an rivet 8 shown in Figures 1 and 3 of Piber. The pivoting is expressly described in column 2, lines 8-10 of Piber.

Like nearly all such trigger assemblies, the trigger in Piber includes a saddle-shaped surface, not given a number in Piber, that is provided for being engaged by a finger that applies force to and pivots trigger 6. Clearly, the rivet 8 is at an upper or first end of that surface of the trigger. However, the locking mechanism in Piber is not located at the second or lower end of the trigger. That end of the trigger 6 of Piber would be the end of the trigger near the reference number 6 in Figure 1 of Piber. The locking mechanism in Piber, including the knob 24, the shaft 18, and the spring 22, is located proximate the first end of the trigger, the same end that includes the rivet 8. Because of this difference, Piber cannot anticipate any of claims 1-3 and 8-10.

Not only is there a difference in structure between the invention and Piber, the difference in structure provides an important advantage. In Piber, when the locking mechanism prevents the displacement of the trigger, the force applied by a finger to the trigger 6 applies a large force to the pin 18. The force is enhanced because of the lever arm extending from the rivet 8 to the central location of the force applied by the actuating finger. By contrast, in the invention, as described in the patent application at page 10, lines 20-21, no such large force is applied to any element of the trigger assembly when the locking mechanism prevents actuation of the trigger. Rather, because the force exerted by the actuating finger is applied very near the second end of the trigger surface, very close to the locking member 310 in the depicted embodiment, there is no lever arm multiplying the finger force to produce a larger force applied to the protrusion 116. Accordingly, in a trigger assembly according to the invention, it is not necessary to provide members having sufficient strength to resist the levered force applied to the locking assembly of Piber.

Since Piber lacks at least one element of claim 1, Piber cannot anticipate any claim now pending. Therefore, the rejection of claims 1-3 and 8-10 should be withdrawn.

Claims 4-7 were rejected as unpatentable over Piber in view of Yeske (U.S. Patent 3,777,092). This rejection is respectfully traversed.

Even if Yeske supplied the limitations of claims 4-7, a point not conceded by the applicant, it is apparent that the foundation of the rejection of claims 4-7 is the assertion that Piber anticipates claim 1. Since, for the reasons already provided, the rejection based upon Piber can no longer be maintained, it is not necessary to respond further to the rejection of claims 4-7.

The foregoing amendment and remarks demonstrate that all claims are patentable over the prior art applied. Therefore, claims 1-11 should now be allowed.

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Date: January 28, 2005
JAW/tps

Amendment or ROA - Regular (Revised 11-23-04)